

Type I and II Ground Disturbing Categorical Exclusion Action Of Classification Form

Project No.	BR-0115
WBS Element	48824.1.1
Federal Project No.	N/A

A. Project Description:

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 480166 on SR 1595 (Coolbrook Road) over Rocky Creek in Iredell County in Division 12 (Refer to Figure 1).

Built in 1966, Bridge No. 480166 has two 9.6-foot travel lanes, is approximately 107 feet in length, and is constructed with a timber deck on salvaged I-beams. Bridge No. 480166 has a posted Single Vehicle weight limit of 24 tons and a Truck Tractor Semitrailer weight limit of 30 tons. The existing right of way along Coolbrook Road is 60 feet. The project is scheduled for Right of Way (ROW) in August 2019 and Let in April 2020. Minor ROW acquisition is anticipated.

The project proposes replacing the existing two-lane bridge structure with an approximately 30-foot wide structure with two 10-foot travel lanes with 3-foot 11-inch paved shoulders. The proposed bridge would be approximately 138 feet in length and the proposed right of way varies from 60 feet to 85 feet. The total length of the project is approximately 700 feet. The proposed bridge will not be posted and will be designed to meet the legal load rating. The bridge replacement would be constructed in place using an off-site detour. The roadway is classified as a Local Route with a 35-mile per hour design speed.

This bridge will serve as a detour route for NCDOT project BR-0114, which proposes the replacement of Bridge No. 480165 on SR 1601 (Branton Road) over Rocky Creek. Since Bridge No. 480166 (BR-0115) is currently a posted bridge, BR-0115 will need to be constructed prior to BR-0114.

B. Description of Need and Purpose:

The replacement of Bridge No. 480166 is part of the *Growing Rural Economy and Agriculture through Transportation and Technology Enhancement or Replacement in North Carolina (GREATER-NC)* Project under the United States Department of Transportation's 2018 Better Utilizing Investments to Leverage Development (BUILD) Grant program. The purpose of the grant and this bridge replacement project is to provide transportation infrastructure to support economic development and improve physical and digital connectivity in rural communities in North Carolina. The posted weight restriction on Bridge No. 480166 prohibits large or heavy vehicles, typically used in transporting agricultural and manufactured products, from using the bridge. Vehicles above the posted weight must detour 7 miles to avoid the bridge. Replacing the existing bridge will eliminate posted weight limits by providing a safe crossing for all legal

loads and will make accommodations for broadband installation in order to support economic competitiveness.

NCDOT Structures Management Unit records indicate Bridge No. 480166 has a sufficiency rating of 58.87 out of a possible 100. Bridge No. 480166 is considered structurally deficient due to a superstructure condition appraisal of 4 out of 9 according to Federal Highway Administration (FHWA) standards. The bridge is approaching the end of its useful life. The existing bridge also has a posted weight limit and the proposed project will be designed to meet the legal load rating.

C. Categorical Exclusion Action Classification:

- TYPE I A
- TYPE I B
- TYPE II A
- TYPE II B

D. Proposed Improvements:

- 28. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings, if the actions meet the constraints in 23 CFR 771.117(e)(1-6).

E. Special Project Information:

Anticipated Permit or Consultation Requirements: A Nationwide Permit (NWP) No. 3- Maintenance and/or NWP No.14- Linear Transportation Projects will likely be applicable. The US Army Corps of Engineers (USACE) holds the final discretion as to what permit will be required to authorize project construction. A Section 404 permit is required and a corresponding Section 401 Water Quality Certification (WQC) from the NC Department of Environmental Quality - Division of Water Resources (NC DEQ - DWR) is needed.

Floodplain: Rocky Creek, which crosses under Bridge No. 480166, is in a FEMA Zone AE Floodplain. The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP) regarding applicability of NCDOT’S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR). This is noted in the greensheet/project commitments.

Historic and Archaeological Resources: In compliance with NCDOT’s Programmatic Agreement with the State Historic Preservation office, an Archaeological Survey Required Form was completed by NCDOT’s Archaeology Team on 10/16/2018 followed by a No National Register of Historic Places Eligible or Listed Archaeological Sites Present Form on 03/08/2019. On 10/31/2018, NCDOT completed a No Survey Required Form for Historic Architecture and Landscapes.

Agricultural Land Use: Based on the site visit (04/15/2019), aerial imagery, and local planner input, it appears there is agricultural land use surrounding the project study area, primarily hay production. Farming operations in the vicinity of the bridge may be affected temporarily during construction by losing direct access and by using the approximately 7-mile detour route. Continued coordination should occur through right of way with the owners of the agricultural lands that are temporarily impacted by the off-site detour. This is noted in the greensheet/project commitments.

Environmental Commitments: Greensheet/Project commitments are located at the end of the checklist.

Estimated Costs (Pending): The estimated costs, dated July 2018, are as follows:

Utility*	\$	64,000
R/W*	\$	64,000
Const.*	\$	1,600,000
Total	\$	1,728,000

*Source: NCDOT Connect GREATER Rural Bridge Program- Bridges Budget Sources and Uses, Accessed June 11, 2019. <https://connect.ncdot.gov/resources/GREATER-Rural-Bridge-Program/Documents/05%20NCDOT%20Bridges%20Budget%20Sources%20and%20Uses.xlsx>

Estimated Traffic:

Average Daily Traffic (ADT) 2015	560 vehicles per day (vpd)
ADT 2040	1,120 vpd

Crashes: NCDOT's Safety Planning Group completed a planning level query of bridge crash counts from 1/1/2013 to 12/31/2017. Over the five-year study period, zero crashes were reported within a 500 feet distance of Bridge No. 480166 on Coolbrook Road.

Pedestrian and Bicycle Accommodations: There are no existing bicycle and pedestrian facilities on Bridge No. 480166 along Coolbrook Road.

Design Exceptions: There are no anticipated design exceptions for this project.

Alternative Analysis:

No Build- The no build alternative would not replace the deficient bridge or meet the requirements of the *Growing Rural Economy and Agriculture through Transportation and Technology Enhancement or Replacement in North Carolina* (GREATER-NC) Project, and thus is not a viable option.

Rehabilitation- Rehabilitation would only provide a temporary solution to the structural deficiency of the bridge and would not meet the requirements of the GREATER-NC Project, and thus is not a viable option.

Onsite Detour- An offsite detour was determined acceptable.

New Alignment- A new alignment option for Coolbrook Road is not preferred due to the acceptable offsite detour route which allows for the bridge to be replacement in place.

Replace Bridge in Place with Widening to the East and an Offsite Detour (Preferred Alternative)- The bridge will be replaced in place and widened to the east due to the need to preserve driveway access west of the bridge and riprap construction. The detour route is approximately 7 miles long and follows SR 1598 (Linney's Mill Road) and NC 115 (Wilkesboro Highway).

Agency Comments: Input forms were sent to the Iredell County EMS Director, Iredell County Planning and Development Planning Director, and the Iredell-Statesville Schools Director of Transportation in February of 2019. At the request of the Iredell County EMS Director, additional EMS input forms were sent to North Iredell Rescue Squad and the Central Fire Department in June of 2019.

The Iredell-Statesville Schools Director of Transportation noted two school buses crossing the bridge in the morning and two in the afternoon daily and stated there would be low impact to the Iredell-Statesville School System if the bridge was closed for up to a year. The Iredell County EMS Director and the North Iredell Rescue Squad Chief stated a low level of impact if the bridge was closed for up to a year. A low to moderate level of impact was noted from the Iredell County Planning and Development Planning Director if the bridge was closed for up to a year.

The Planning Director also described the area as a rural farming community and noted frequent crossings of the bridge by the Iredell County Transit System, approximately 240 crossings by on demand transit services in the past 60 days.

Agency Start of Study notifications were sent to the **US Army Corps of Engineers (USACE)**, **US Fish and Wildlife Service (USFWS)**, **NC Department of Environmental Quality-Division of Water Resources (NC DEQ- DWR)**, **NC Wildlife Resources Commission (NC WRC)**, **Federal Highway Administration (FHWA)**, and **NC Division of Parks and Recreation (NC DPR)** in May of 2019. Start of Study notifications were also sent to NCDOT Division 12 and NCDOT Preconstruction contacts in May 2019.

The **US Fish and Wildlife Service (USFWS)** provided general comments regarding general recommendations for replacing structures that cross rivers and streams, erosion and sediment control, Northern Long-eared Bats (NLEB), and migratory birds. The project specific comments provided by USFWS include surveying for *Hexastylis naniflora* (Dwarf-flowered heartleaf) and recommend winter tree clearing for NLEB.

Response: A Natural Resources Technical Report (NRTR) was completed in May of 2019 for this project and provided a biological conclusion of "**No Effect**" for *Hexastylis naniflora* (Dwarf-flowered heartleaf) based on surveys performed on April 2, 2019 and April 23, 2019 by Three Oaks Engineering. A Section 7 Survey Results for the Northern Long-eared Bat Memorandum was provided by NCDOT Biological Surveys Group that covers the following conservation commitments for NCDOT:

- 1) No alterations of a known hibernacula entrance or interior environment if it impairs an essential behavioral pattern, including sheltering northern long-eared bats (January 1 through December 31);
- 2) No tree removal within a 0.25-mile radius of a known hibernacula (January 1 through December 31); and
- 3) No cutting or destroying a known, occupied maternity roost tree, or any other trees within a 150-foot radius from the known, occupied maternity tree during the period from June 1 through and including July 31.

The **US Army Corps of Engineers and NC Division of Parks and Recreation** had no specific concerns for the project. No responses were received from the **NC Department of Environmental Quality- Division of Water Resources** and **NC Wildlife Resources Commission**.

Public Involvement: A landowner notification letter was sent on 2/7/2019 to all property owners affected directly by this project to inform them of representatives being present on their property. The letter indicated the following, "Please note that if the U.S. Army Corps of Engineers has already issued a Jurisdictional Determination on your property confirming the presence of streams and/or wetlands, or if you have general questions or comments about the project, contact David Stutts at dstutts@ncdot.gov or (919) 707-6442." No comments have been received to date.

Prior to ROW, newsletters will be sent out by NCDOT to the properties affected by the project to inform them of the project and the offsite detour. This is noted in the greensheet/project commitments.

F. Project Impact Criteria Checklists:

<u>Type I & II - Ground Disturbing Actions</u>			
<u>FHWA APPROVAL ACTIVITIES THRESHOLD CRITERIA</u>			
If any of questions 1-7 are marked "yes" then the CE will require FHWA approval.		Yes	No
1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Does the project require an Individual Section 4(f) approval?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Does the project include adverse effects that cannot be resolved with a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) or have an adverse effect on a National Historic Landmark (NHL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If any of questions 8 through 31 are marked "yes" then additional information will be required for those questions in Section G.			
<u>Other Considerations</u>		Yes	No

8	Does the project result in a finding of “may affect not likely to adversely affect” for listed species, or designated critical habitat under Section 7 of the Endangered Species Act (ESA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	Is the project located in anadromous fish spawning waters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	Does the project impact waters of the United States in any of the designated mountain trout streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	Does the project include a Section 106 of the NHPA effects determination other than a no effect, including archaeological remains?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Other Considerations (continued)</u>		Yes	No
15	Does the project involve hazardous materials and/or landfills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16	Does the project require work encroaching and adversely affecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization’s (MPO’s) Transportation Improvement Program (TIP) (where applicable)? Not Applicable	<input type="checkbox"/>	<input type="checkbox"/>
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Does the project include a <i>de minimis</i> or programmatic Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29	Is the project considered a Type I under the NCDOT's Noise Policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
31	Are there other issues that arose during the project development process that affected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

G. Additional Documentation as Required from Section F

Response to Question 16: This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine status of project with regard to applicability of NCDOT'S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

Response to Question 30 - Prime and Important Farmland Soils:

Prime and Important Farmland Soils as defined by the Farmland Protection Policy Act (FPPA) are located within the project study area. A project footprint for the Prime and Important Farmland Soils assessment was created to include a 25-foot buffer from estimated right of way, based on the preliminary plans. The Prime and Important Farmland Soil found within the footprint are designated as all areas are Farmland of Statewide Importance (BnD) and Prime Farmland (BkB).

A Natural Resource Conservation Service (NRCS) Farmland Conversion Impact Rating has been completed for this project and a total score of 50 out of 160 points was calculated for the BR-0115 project site. Since the total of the points assigned in part VI of the NRCS Farmlands Conversion Form AD-1006 for BR-0115 is less than 60 and therefore the total points of the NRCS Farmlands Conversion Form AD-1006 is less than 160, no mitigation for farmland loss is required for the project in accordance with FPPA.

H. Categorical Exclusion Approval

Project No.	<u>BR-0115</u>
WBS Element	<u>48824.1.1</u>
Federal Project No.	<u>N/A</u>

Prepared By:

7/23/2019

Date

DocuSigned by:

Elizabeth Scott

Elizabeth Scott, EI, STV Engineers Inc.

Prepared For:

North Carolina Department of Transportation

Reviewed By:

7/23/2019

Date

DocuSigned by:

Phil Harris

Philip S. Harris, III, PE, Environmental Analysis Unit
North Carolina Department of Transportation



Approved

If all of the threshold questions (1 through 7) of Section F are answered "no," NCDOT approves this Categorical Exclusion.



Certified

If any of the threshold questions (1 through 7) of Section F are answered "yes," NCDOT certifies this Categorical Exclusion.

7/30/2019

Date

DocuSigned by:

Kevin Fischer

Kevin Fischer, PE, Structures Management Unit
North Carolina Department of Transportation

FHWA Approved: For Projects Certified by NCDOT (above), FHWA signature required.

Date

Not Applicable

John F. Sullivan, III, PE, Division Administrator
Federal Highway Administration

I. Project Commitments

**Iredell County
Bridge No. 480166 on SR 1595 (Coolbrook Road) over Rocky Creek
WBS No. 48824.1.1
Project No. BR-0115**

NCDOT Hydraulics Unit - FEMA Coordination FEMA Coordination

The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine status of project with regard to applicability of NCDOT'S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

NCDOT Structures Management Unit

Public Involvement Newsletter

Prior to ROW, newsletters will be sent out on behalf of NCDOT to the properties affected by the project to inform them of the project and the offsite detour.

NCDOT Division 12

Agricultural Land Use

Farming operations in the vicinity of the bridge may be affected temporarily during construction by losing direct access and by using the approximately 7-mile detour route. Continued coordination should occur through right of way with the owners of the agricultural lands that are temporarily impacted by the off-site detour.

NCDOT Division 12

Schools and Emergency Management Services

NCDOT should coordinate with Iredell County Schools (Kim Fox, 704-872-5321) and Iredell County EMS (Blair Richey, 704-878-3025) one month prior to construction.

09/08/19

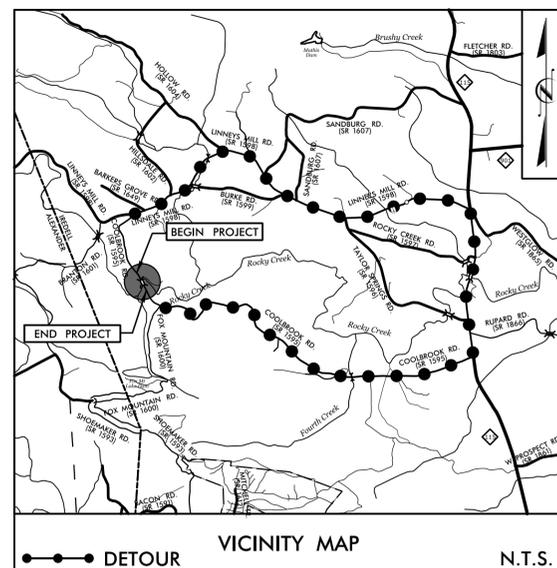
See Sheet 1A For Index of Sheets
See Sheet 1B For Standard Symbology Sheet

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

IREDELL COUNTY

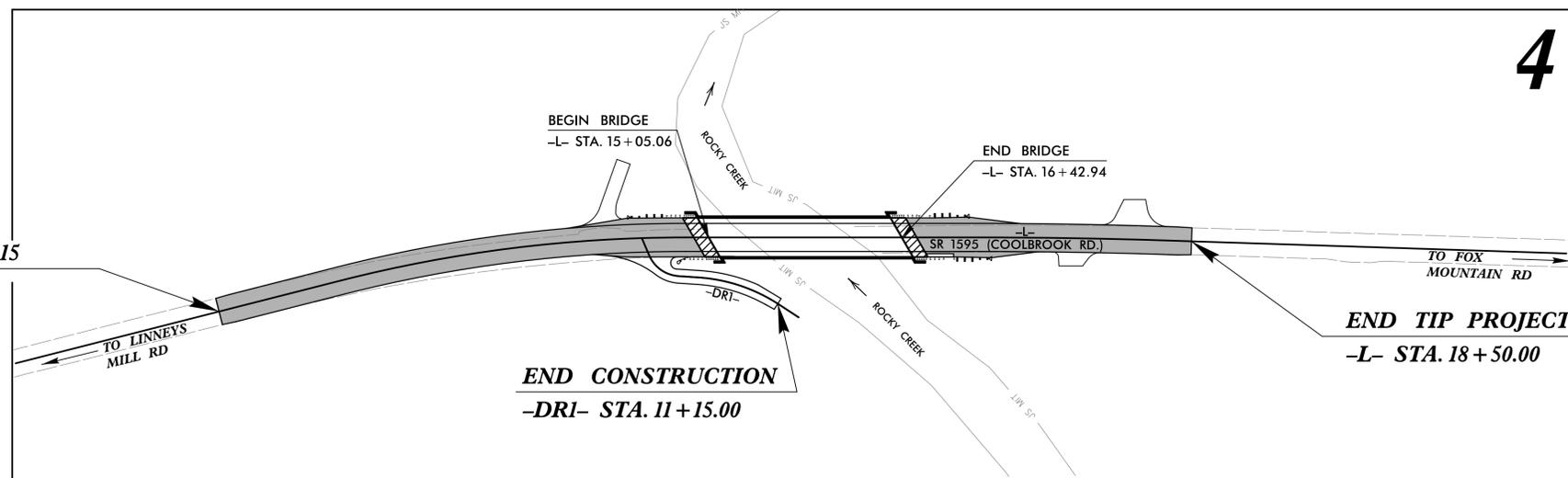
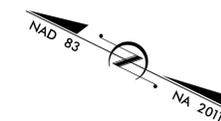
**LOCATION: BRIDGE #166 OVER ROCKY CREEK
ON SR 1595 (COOLBROOK RD)**
TYPE OF WORK: GRADING, DRAINAGE, PAVING & STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0115	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
67115.1.1		P.E.	



PRELIMINARY PLANS

TIP PROJECT: BR-0115



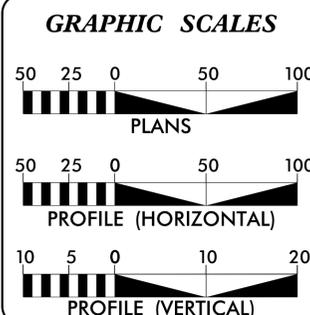
4

**THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.
CLEARING ON THIS PROJECT SHALL BE PERFORMED
TO THE LIMITS ESTABLISHED BY METHOD _____.**

**INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION**

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

CONTRACT:



DESIGN DATA

ADT 2016 =	560
ADT 2040 =	N / A
DHV =	N / A
D =	N / A
T =	N / A
V =	35 MPH

FUNC. CLASSIFICATION:
LOCAL
SUB-REGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT BR-0115 =	0.107 MILES
LENGTH OF STRUCTURE TIP PROJECT BR-0115 =	0.026 MILES
TOTAL LENGTH OF TIP PROJECT BR-0115 =	0.133 MILES

NCDOT CONTACT: TIERRE PETERSON, PE
Structures Management Unit

PLANS PREPARED FOR THE NCDOT BY:

STV 100 Years
STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

2018 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: AUGUST 1, 2019	NIKKI T. HONEYCUTT, PE PROJECT ENGINEER
LETTING DATE: APRIL 10, 2020	BHUPESH R. JOSHI, EIT PROJECT DESIGNER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

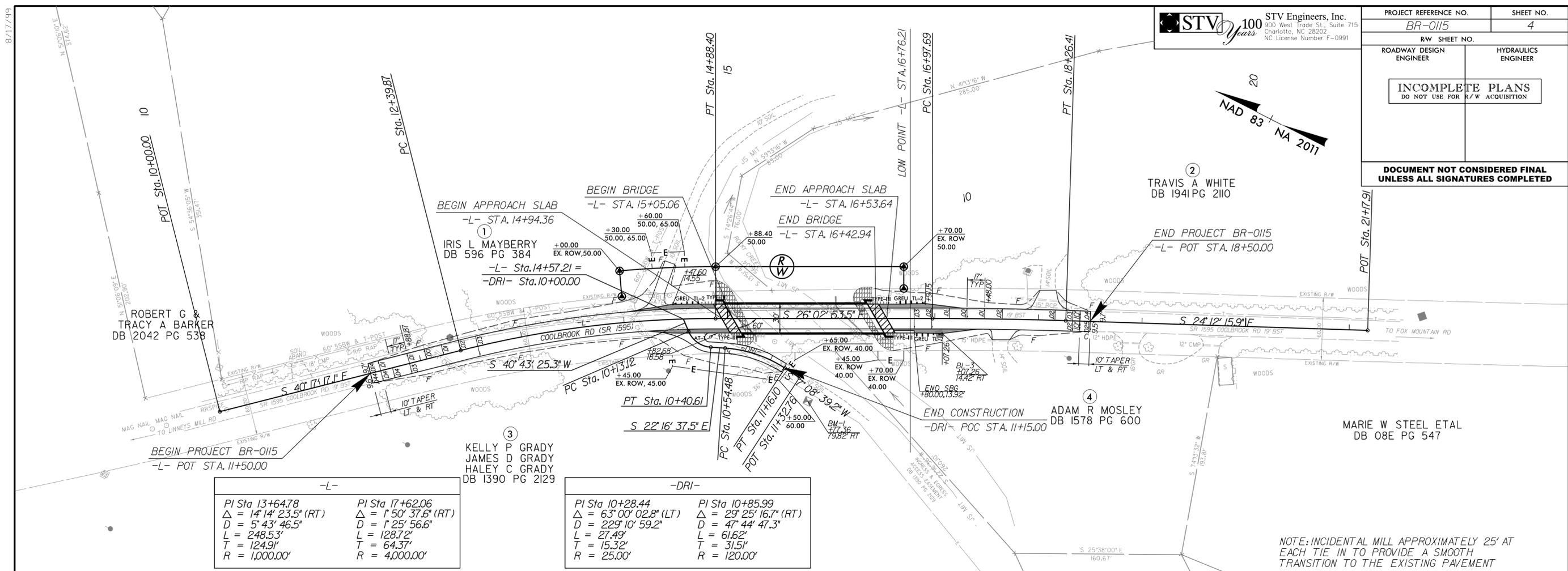
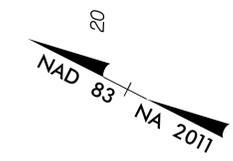
SIGNATURE: _____ P.E.



6/6/2019
R:\Roadway\Pro\J\SHIT\BR-0115_rdy_psh01_tsh.dgn
Joshbr

INCOMPLETE PLANS
 DO NOT USE FOR R/W ACQUISITION

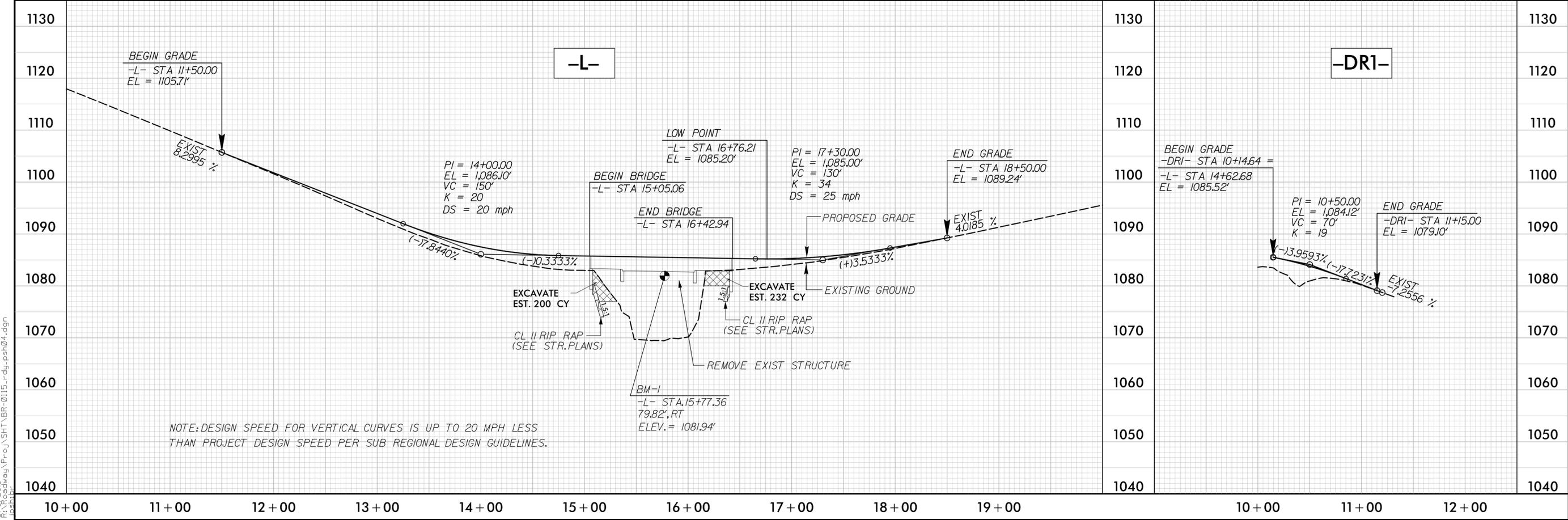
DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED



-L-	
PI Sta 13+64.78	PI Sta 17+62.06
$\Delta = 14' 14'' 23.5''$ (RT)	$\Delta = 1' 50'' 37.6''$ (RT)
D = 5' 43' 46.5"	D = 1' 25' 56.6"
L = 248.53'	L = 128.72'
T = 124.91'	T = 64.37'
R = 1,000.00'	R = 4,000.00'

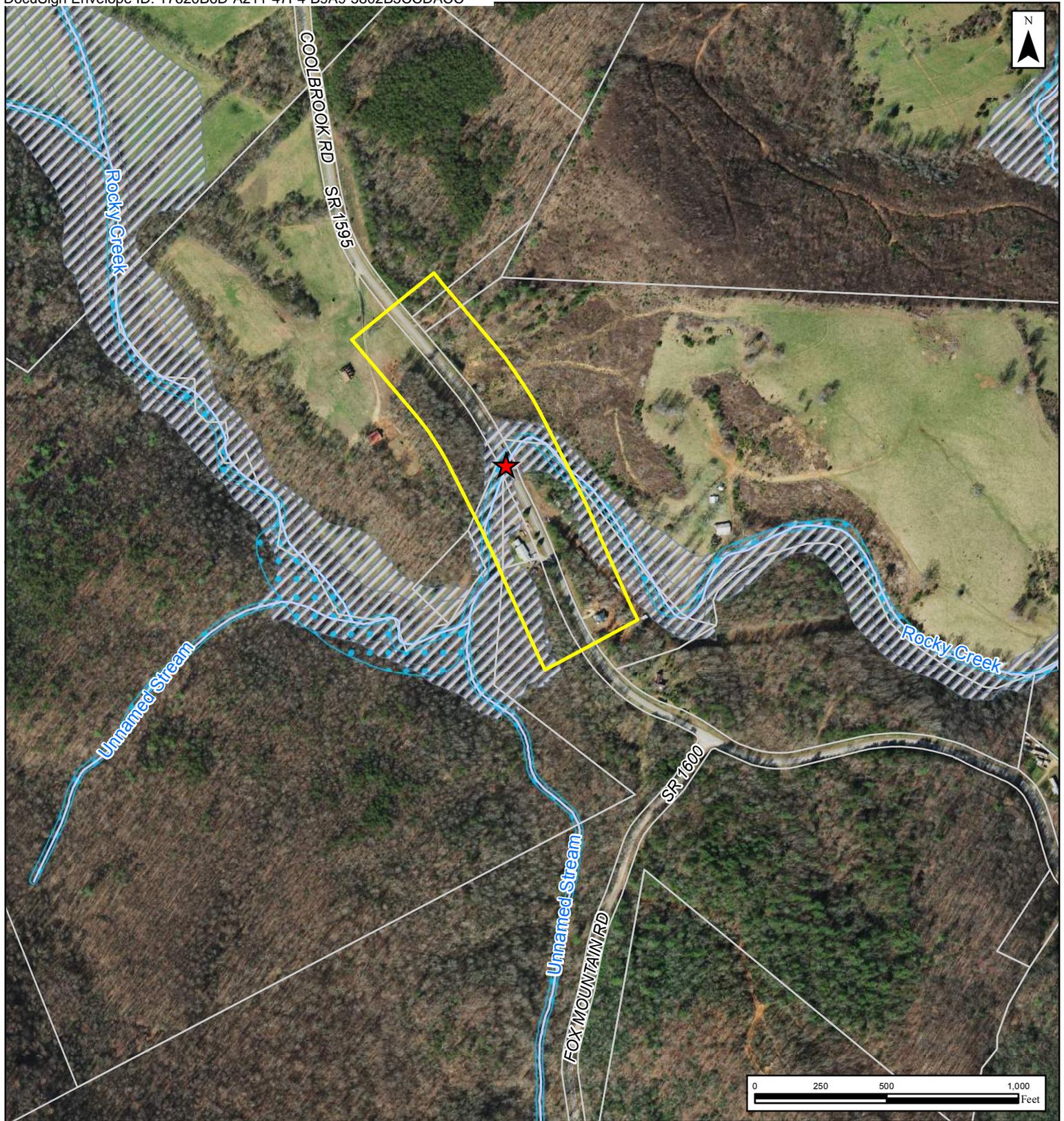
-DRI-	
PI Sta 10+28.44	PI Sta 10+85.99
$\Delta = 63' 00'' 02.8''$ (LT)	$\Delta = 29' 25'' 16.7''$ (RT)
D = 229' 10' 59.2"	D = 47' 44' 47.3"
L = 27.49'	L = 61.62'
T = 15.32'	T = 31.51'
R = 25.00'	R = 120.00'

NOTE: INCIDENTAL MILL APPROXIMATELY 25' AT EACH TIE IN TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT



NOTE: DESIGN SPEED FOR VERTICAL CURVES IS UP TO 20 MPH LESS THAN PROJECT DESIGN SPEED PER SUB REGIONAL DESIGN GUIDELINES.

8/17/19
 S:\2019\Projects\SH\BR-0115_rdy_psh04.dgn



Legend

- ★ Bridge No. 166 over Rocky Creek
- ▭ Project Study Area
- Stream
- ▨ Floodplain
- NWI Wetland
- Parcel

Iredell County, NC



Sources: Iredell County GIS Department, NC One Map, NC HPO GIS Portal, & Google Earth

BR-0115
Bridge No. 480166
Replacement Project
over Rocky Creek
Iredell County
NCDOT Division 12

June 2019

Figure 1

18-09-0091**ARCHAEOLOGICAL SURVEY REQUIRED FORM**

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.

**PROJECT INFORMATION**

Project No: **BR-0115 (Structure 480166)** *County:* **Iredell**
WBS No: **67115.1.1** *Document:* **Federal CE**
F.A. No: **N/A** *Funding:* State Federal

Federal Permit Required? Yes No *Permit Type:* **USACE (not specified)**

Project Description: NCDOT's Division 12 proposes to replace Bridge No. 166 on Coolbrook Road (SR 1595) over Rocky Creek in Iredell County. Bridge No. 166 was built in 1966 and has been selected to be replaced. Since there is no planned change to the existing cross-section, Bridge No. 166 will presumably be replaced in place. Since Preliminary Design Plans have not been developed, a Study Area has been generated in order to facilitate environmental planning purposes at this stage. The Study Area will be centered on the bridge location and measure about 400 feet wide (200 feet off centerline) by about 1,465 feet long, encompassing about 13.9 acres, inclusive of all existing roadways and any modern development.

SUMMARY OF ARCHAEOLOGICAL RESOURCES REVIEW: *SURVEY REQUIRED****Brief description of review activities, results of review, and conclusions:***

This project was accepted on Monday, September 17, 2018. A map review and site file search at the Office of State Archaeology (OSA) was conducted on Wednesday, September 19, 2018. An archaeological survey has never been conducted at this particular location and no archaeological sites have been recorded within one (1) mile of the proposed project. Digital copies of HPO's maps (Gilreath and Osbornville Quadrangles) as well as the HPOWEB GIS Service (<http://gis.ncdcr.gov/hpoweb/>) were last reviewed on Thursday, October 11, 2018. There are no known historic architectural resources located within or adjacent to the Study Area for which intact archaeological deposits would be anticipated within the footprint of the proposed project. In addition, topographic maps, historic maps (NCMaps website), USDA soil survey maps, and aerial photographs were utilized and inspected to gauge environmental factors that may have contributed to historic or prehistoric settlement within the project limits, and to assess the level of modern, slope, agricultural, hydrological, and other erosive-type disturbances within and surrounding the Study Area.

This is a State-funded project for which a Federal permit may be required. Permanent/temporary easements will be necessary whereas the need for additional ROW was not conveyed as part of the submittal. Presumably, the size and shape of the Study Area have been drawn in a way to capture any possible ground-disturbing activities associated with this project, beyond the NCDOT's existing ROW along Coolbrook Road. At this time, we are in compliance with NC GS 121-12a, since there are no eligible (i.e. National Register-listed) archaeological resources located within the project's Study Area that would require our attention. From an environmental perspective, the Study Area consists of wooded terrain in the western Piedmont of North Carolina. The Study Area consists of primarily four (4) soil types (Braddock-Clifford complex, 8-15% slopes [BnD], Rhodhiss sandy loam, 15-25% slopes [RcE], Ronda-Comus complex, 0-5% slopes, occasionally flooded [RxB], and Braddock-Appomattox complex,

"ARCHAEOLOGICAL SURVEY REQUIRED" form for Minor Transportation Projects as Qualified in the 2007/2015 Programmatic Agreement.

18-09-0091

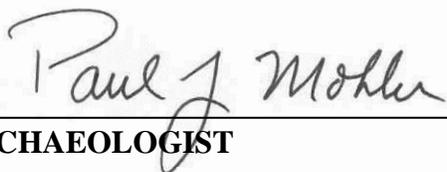
2-8% slopes [BkB]). Although portions of the Study Area consist of poorly drained soils or sloping topography, sections of well-drained and relatively level terrain are present and are considered to have a medium to high probability for archaeological deposits and will require formal archaeological investigations. Remarkably, the Office of State Archaeology (OSA) has not reviewed any projects within the vicinity of the Study Area for environmental compliance so inferring anything meaningful from previously reviewed projects is not possible. Within five (5) miles of the Study Area, NCDOT's Archaeology Group has reviewed at least four (4) transportation-related projects for environmental compliance under the Programmatic Agreement (PA) with the State Historic Preservation Office (NC-HPO), none of which is located within one (1) mile of the proposed project. An archaeological survey was recommended for two (2) of those projects, both of which were bridge replacement projects in Wilkes County, because a review of OSA's site files showed that very few archaeological investigations have been carried out in this region of the state and that further work is needed throughout the area in order to better understand settlement patterns in this section of the state before any firm conclusions can be drawn on site predictability. Only one (1) archaeological site (31WK269) was documented as a result of those surveys. The site is considered an isolated artifact occurrence and was recommended not eligible for the NRHP. Based on the paucity of archaeological investigations in the region and the presence of well-drained and relatively level terrain within the Study Area, an archaeological survey is recommended. A visual inspection of the entire Study Area should be conducted, followed then by systematic archaeological excavations within areas of moderate to high archaeological probability within the Study Area, focusing on areas of moderately well-drained to well-drained soils that have not been impacted by development and on known historic resources (if present) to determine if an archaeological component is also present. All cemeteries (if any) should also be properly recorded and delineated if any occur within or adjacent to the Study Area. None of the property within the Study Area that may require further investigation is owned by the State of North Carolina so a State Archaeological Resources Protection Act (ARPA) permit should not be necessary. Should the description of this project change or design plans be made available prior to construction, additional consultation regarding archaeology will be required.

*We can complete these investigations internally or by using one of the Archaeology Team's on-call firms or if Division would like to manage and complete the survey, they can use an NCDOT prequalified archaeologist under contract with one of the Division's on-call firms. We can provide a scope of work for the Division to use, but we do need to know **within seven days** which path the Division plans to follow. All products produced by the Division's consultant will need to be submitted to the Archaeology Team for review, acceptance, and submittal to the Office of State Archaeology as per the Programmatic Agreement. We would be happy to discuss this approach with you.

SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Photos Correspondence
 Photocopy of County Survey Notes Other:

FINDING BY NCDOT ARCHAEOLOGIST – SURVEY REQUIRED



NCDOT ARCHAEOLOGIST

October 16, 2018

Date

PROPOSED FIELDWORK COMPLETION DATE

April 16, 2019

BACKGROUND RESEARCH

An NCDOT archaeologist conducted a map review and site file search at the North Carolina Office of State Archeology (OSA) on September 19, 2018. In addition, topographic maps, historic maps (NCMaps website), USDA soil survey maps, and aerial photographs were utilized and inspected to gauge environmental factors that may have contributed to historic or prehistoric settlement within the project limits, and to assess the level of modern, slope, agricultural, hydrological, and other erosive-type disturbances within and surrounding the Study Area. Additional review of land deeds, parcel searches, and historic maps was conducted by a Louis Berger SOI qualified archaeologist. The following background combines the results of both the Louis Berger and NCDOT records reviews.

No previous archaeological surveys have included the Study Area. The Office of State Archaeology (OSA) has not reviewed any projects within the vicinity of the Study Area for environmental compliance so inferring anything meaningful from previously reviewed projects was not possible. Within five (5) miles of the Study Area, NCDOT's Archaeology Group has reviewed at least four (4) transportation-related projects for environmental compliance under the Programmatic Agreement (PA) with the State Historic Preservation Office (NC- HPO), none of which is located within one (1) mile of the proposed project. An archaeological survey was recommended for two (2) of those projects, both of which were bridge replacement projects in Wilkes County, and because a review of OSA's site files showed that very few archaeological investigations have been carried out in this region of the state, they determined that further work was needed throughout the area in order to better understand settlement patterns in that section of the state before any firm conclusions can be drawn on site predictability. Only one (1) archaeological site (31WK269) was documented as a result of those surveys. The site was located on a remnant levee and consisted of a single piece of lithic debitage. It was recommended not eligible for listing in the NRHP.

Review of the North Carolina State Historic Preservation Office HPOWEB GIS Service (<http://gis.ncdcr.gov/hpweb/>) indicated there are no known historic architectural resources located within or adjacent to the Study Area for which intact archaeological deposits would be anticipated within the footprint of the proposed project.

The APE consists of wooded terrain in the western Piedmont of North Carolina. The Study Area consists of primarily four (4) soil types (Braddock-Clifford complex, 8-15% slopes [BnD], Rhodhiss sandy loam, 15-25% slopes [RcE], Ronda-Comus complex, 0-5% slopes, occasionally flooded [RxB], and Braddock-Appomattox complex, 2-8% slopes [BkB]). Although portions of the Study Area consist of poorly drained soils or sloping topography, sections of well-drained and relatively level terrain are present and are considered to have a medium to high probability for archaeological deposits.

RESULTS OF THE FIELD INVESTIGATION

A. Visual Reconnaissance Survey

The visual reconnaissance of the Study Area showed that it consisted of steep slope greater than 20 percent throughout with minimal near-level to level areas. There was also disturbance from roadside drainage ditching, and moderate disturbance from utilities.

B. Results of the Phase I Archaeological Testing

Four (4) discrete survey areas were tested within the Study Area. This was part of a larger survey project which consisted of four locales in Gaston, Catawba, and Iredell counties. As such, the project area for Bridge 166 was recorded as Area 3.

Area 3 was located in Iredell County near Rocky Creek. There were four discrete survey areas (3a to 3d) within the APE (Figure 3). The survey areas were located on the east and west sides of Coolbrook Road (SR 1595) on low terraces and ridges.

1. Survey Area 3a

Survey Area 3a was situated on the east side of Coolbrook Road (SR 1595) just north of the bridge over Rocky Creek (Figure 4). It was bounded by the limits of the APE to the north and east, the road itself to the west, and the slope down to the creek to the south. The survey area slopes up from the road to a near-level area, then slopes southwards from STP A-3. The exposed ground on the slope was subsoil, which indicates that it has been subjected to erosional activities from upslope (Photo 1). An old road bed was noted in the center of the survey area, running roughly east-west. The road is visible in recent aerial photos and likely linked the main road to a large farm to the east.

Three shovel tests (A-1 to A-3) were dug on the most level portion of the ridge. Stratigraphy generally consisted of a dark yellowish brown to brown sandy loam topsoil (A-horizon) that ranged from 13 to 30 cm deep overlying a yellowish red clay loam subsoil (Bt-horizon). The remainder of the survey area (to the south and the west) had slope greater than 25 percent. It was not subjected to subsurface testing but an informal pedestrian survey of the area was done. No artifacts were found during the testing of this survey area.

2. Survey Area 3b/ Site 31ID366

Survey Area 3b was located on the west side of Coolbrook Road (SR 1595) just north of the bridge over Rocky Creek (see Figure 4). At its south end, the survey area sloped down to the southeast and up to a ridgetop to the west. To the northwest, the APE stopped at the edge of the upper ridge, just east of a house. The house, situated just outside the APE, was built in 2004. A house is depicted at the location on the 1966 Gilreath quad map that coincides with a small complex that shows up on a 1964 aerial of the location (historicaerials.com). By 1993, it was torn down. Deed research indicates that the Bussell (Busle)/Williams extended family had been at the location from at least 1926 until 1979, when it was sold to the Bebbber Family (Deeds 85/274; 316/345; 322/386; 634/710), and in the general area since at least 1891. The Bebbbers then sold the land to the Grady Family in 2002 (Book 1390, page 2129).

A total of nine (9) shovel tests, including radials, was dug in the survey area. Shovel tests adjacent to the roadway had mixed/disturbed soils above subsoil, likely the result of cutting/grading related to road construction (Photo 2). On the edge of the ridge, stratigraphy generally consisted of a dark brown (STPs B-5, B-5 E7.5, and B-5 W7.5 N7.5) to reddish brown (remaining STPs) silt loam plowzone (Ap-horizon) that ranged from 17 to 26 cm deep overlying a red clay loam subsoil (Bt-horizon).

No artifacts were found at the south end of the survey area but four prehistoric artifacts (Table 1) and 41 historic artifacts (Table 2) were found on the ridge near the modern house (Photo 3). The prehistoric artifacts consisted of three pieces of quartz debitage and a white chalcedony biface fragment (Photo 4). The chalcedony likely derived from the Ridge and Valley formation located about 60 km (about 40 miles) to the north.

	STP	B4	B5W7.5	B5W7.5N7.5	Total
Lithics					4
Biface				1	1
Debitage		1	2		3
Total		1	2	1	4

	STP	B4W7.5	B5	B5W7.5	B5W7.5N7.5	Total
Glass						12
Bottle				1		1
Tableware		1				1
Unidentified Glass				7	3	10
Historic Ceramic						11
Stoneware - Alkaline Glazed				3		3
Whiteware				3	5	8
Arms-related						2
Cartridge Casing - 22 Caliber				2		2
Architectural						16
Machine Cut Nail				1		1
Nut				1		1
Window Glass				1	3	4
Wire Nail			1	4	5	10
Total		1	1	23	16	41

Taken as a whole, the historic assemblage dates from the mid-nineteenth to the twentieth century and is likely related to the Bussell/Williams time on the property. Although the 1966 Gilreath map provided the earliest historical reference to a house at the location, occupation at the site likely pre-dates that time. Base sherds of a locally produced mid-to-late nineteenth century dark brown alkaline glazed stoneware crock were recovered from STP B5 W7.5. The interior and exterior were glazed, with a dark grey speckled interior paste. The architectural artifacts indicate that a structure was nearby, possibly where the modern house sits, which is the most level part of the ridge.

Given the historic and recent disturbances at Site 31ID366, and the limited amount of prehistoric material recovered, Louis Berger recommends that the prehistoric component of the site as identified within the boundaries of the current Study Area is not eligible for listing in the NRHP. Likewise, given the disturbed nature and later period of the historic finds, Louis Berger recommends that the historic component of the site is not eligible for listing in the NRHP. It should be noted though that prehistoric and/or historic material may extend beyond the limits of the investigated Study Area. If the Study Area were to be expanded in this location beyond that which has been surveyed, then additional archaeological investigations will be required.

3. Survey Area 3c

Survey Area 3c was located on the west side of Coolbrook Road (SR 1595), south of the bridge over Rocky Creek (Figure 5). The survey area was on the west side of a bermed ditch, which was downslope from the roadway (Photo 5). A stream ran roughly north-south within the survey area, and there was a large area of saturated soils. A large bog comprised the southern end of the survey area.

Shovel test C-1 was dug on the west side of the stream (Photo 6) and shovel test C-2 was dug on the east side of the stream (Photo 7). Stratigraphy in STP C-1 was a strong brown sandy loam that was 43 cm deep above a yellowish brown sandy loam, possibly subsoil. The soil became saturated at 56 cm below surface. STP C-2 encountered hydric soils, with the water table reached at 47 cm below surface. The remainder of the area was not tested due to standing water and saturated soils. No artifacts were found during the testing of this survey area.

4. Survey Area 3d

Survey Area 3d was located on the east side of Coolbrook Road (SR 1595), south of the bridge over Rocky Creek (see Figure 5). It consisted of slope, disturbance from grading, a dirt road on its north side, and a

narrow ridge in the central and southern portions. The east side dropped off of the eroded ridge down to the dirt road. There were two shed-like structures, several cars, and a large assortment of objects at the north end of the survey area (Photo 8).

Four shovel tests (D-1 to D-4) were dug on the narrow ridge. Stratigraphy generally consisted of a 5-cm thick humic layer above a dark reddish brown to dark brown silty clay loam topsoil (A- or Ap-horizon) that averaged 10 cm thick above a red clay loam subsoil (Bt-horizon). No artifacts were found during the testing of this survey area.

DISCUSSION

As a result of the survey, one newly identified archaeological site (31ID366) was documented within the Study Area. The site is located on the edge of a ridge, in the yard of a recently built house, on the west side of SR 1595 (Coolbrook Road). This site represents a scatter of prehistoric and historic artifacts with no subsurface integrity. Although structures are depicted on historic maps or aerial photography of the area, the artifacts recovered from the site cannot be clearly associated with events (Criterion A) or persons (Criterion B) significant to local or regional history. No above ground structural remains were recorded, and the artifacts recovered do not reflect any particular ethnic, social, cultural, or economic association (Criterion C). The site does not contain evidence of intact cultural deposits. Additional investigations at the site are unlikely to provide unique or significant data and will not contribute to our knowledge of the prehistoric or historic occupation of the area (Criterion D). This site does not retain integrity and is therefore recommended *Not Eligible* for the NRHP under Criteria A–D. No additional archaeological work is recommended for this location.

A total of 5.72 acres was tested through the excavation of 18 shovel test pits (STPs). A total of 8.18 acres was not tested due to the presence of roadways, ditching related to roadway drainage, steep slope, or saturated soils and/or standing water.

Based on the results, no additional archaeological work is recommended in conjunction with the proposed bridge project. If the project scope changes to include areas beyond the Study Area or if design plans change prior to construction, further archaeological investigation will be necessary.

REFERENCES

Iredell County, Register of Deeds

Accessed online at <https://www.co.iredell.nc.us/533/Register-of-Deeds>, February 2019.

Nationwide Environmental Title Research, LLC [NETR]

2018 Historic Aerials. NETR, Tempe, Arizona. Accessed online October 2018, at NETR Online, <https://www.netronline.com/>.

North Carolina State Historic Preservation Office [NCSHPO]

2017 HPOWEB, GIS Web Service. Maps supplemented with aerial photography, county tax parcel layers, and other information. Accessed at <<http://gis.ncdcr.gov/hpweb/>>.

Office of State Archaeology [OSA]

2017 *Archaeological Investigation Standards and Guidelines for Background Research, Field Methodologies, Technical Reports, and Curation (December 2017)*. Division of Archives and History, North Carolina Department of Cultural Resources, Raleigh.

Shrimpton, Rebecca H. and Patrick W. Andrus

1991 *How to Apply the National Criteria for Evaluation*. United States Department of the Interior, National Park Service, Interagency Resources Division, Washington, D.C. Accessed online October 5, 2016, at <<http://www.nps.gov/nr/publications/bulletins/nrb15/>>.

Townsend J.J., J.H. Sprinkle, and J. Knoer

1993 National Register Bulletin 36: Guidelines for Evaluating and Registering Historical Archaeological Sites and Districts. United States Department of the Interior, National Park Service, Interagency Resources Division, Washington, D.C.

National Resources Conservation Service (NRCS)

2018 Natural Resources Conservation Service, United States Department of Agriculture Web Soil Survey. Electronic document, <http://websoilsurvey.nrcs.usda.gov/>, accessed January 2018.

United States Geological Survey (USGS)

2000 Gilreath, North Carolina 7.5' quadrangle (1: 24 000).

The North Carolina Department of Transportation (NCDOT) Archaeology Group reviewed the subject project and determined:

- There are no National Register listed or eligible ARCHAEOLOGICAL SITES present within the project's area of potential effects. (Attach any notes or documents as needed)
- No subsurface archaeological investigations were required for this project.
- Subsurface investigations did not reveal the presence of any archaeological resources.
- Subsurface investigations did not reveal the presence of any archaeological resources considered eligible for the National Register.
- All identified archaeological sites located within the APE have been considered and all compliance for archaeological resources with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.

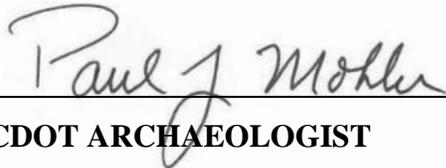
Brief description of review activities, results of review, and conclusions:

The Louis Berger Group conducted these investigations on behalf of NCDOT's Archaeology Group under the guidelines of the department's Programmatic Agreement (PA) with the State Historic Preservation Office (NC-HPO). As a result of the survey, one newly identified archaeological site (31ID366) was documented within the Study Area. The site is located on the edge of a ridge, in the yard of a recently built house, on the west side of SR 1595 (Coolbrook Road). This site represents a scatter of prehistoric and historic artifacts with no subsurface integrity. Although structures are depicted on historic maps or aerial photography of the area, the artifacts recovered from the site cannot be clearly associated with events (Criterion A) or persons (Criterion B) significant to local or regional history. No above ground structural remains were recorded, and the artifacts recovered do not reflect any particular ethnic, social, cultural, or economic association (Criterion C). The site does not contain evidence of intact cultural deposits. Additional investigations at the site are unlikely to provide unique or significant data and will not contribute to our knowledge of the prehistoric or historic occupation of the area (Criterion D). This site does not retain integrity and is therefore recommended *Not Eligible* for the NRHP under Criteria A–D. No additional archaeological work is recommended for this location.

I concur with these findings. It is recommended that the proposed project be allowed to proceed without concern for impacts to significant archaeological resources. Additional fieldwork within the Study Area is unlikely to provide any significant or substantial amounts of archaeological data. Therefore, it is recommended that additional archaeological work should not be required. Based on the recommendation put forth (see above), a finding of "No NRHP-Eligible or -Listed Archaeological Sites Present" is considered appropriate for the proposed project. However, should the description of this project or designs plans change prior to construction, then additional consultation regarding archaeology may be required. If archaeological materials are uncovered during project activities, then such resources will be dealt with according to the procedures set forth for "unanticipated discoveries," to include notification of NCDOT's Archaeology Group.

SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Photos Correspondence
Signed:



NCDOT ARCHAEOLOGIST

March 8, 2019

Date

18-09-0091



HISTORIC ARCHITECTURE AND LANDSCAPES NO SURVEY REQUIRED FORM

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

PROJECT INFORMATION

Project No:	BR-0115	County:	Iredell
WBS No.:	67115.1.1	Document Type:	CE
Fed. Aid No:		Funding:	<input checked="" type="checkbox"/> State <input type="checkbox"/> Federal
Federal Permit(s):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Permit Type(s):	USACE
Project Description: Replace Bridge No 166 on SR 1595 (Coolbrook Rd) over Rocky Creek.			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

<u>Description of review activities, results, and conclusions:</u> Review of HPO quad maps, relevant background reports, historic designations roster, and indexes was undertaken on October 31, 2018. Based on this review there are no NR, DE, LL, SL or SS in the Area of Potential Effects (APE). There is one structure over 50 years of age. It is a minimal traditional cottage that does not rise to the level of architectural significance or integrity which would warrant further evaluation. Iredell County Bridge No. 166, which was constructed in 1966, does not exemplify any distinctive engineering or aesthetic type and is not eligible for the National Register of Historic Places. No Survey is required at this time.
<u>Why the available information provides a reliable basis for reasonably predicting that there are no unidentified significant historic architectural or landscape resources in the project area:</u> Using HPO GIS website and county tax data provides reliable information regarding the structures in the APE. These combined utilities are considered valid for the purposes of determining the likelihood of historic resources being present.

SUPPORT DOCUMENTATION

Map(s) Previous Survey Info. Photos Correspondence Design Plans

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- NO SURVEY REQUIRED

Shelby Reap
NCDOT Architectural Historian

Oct 31, 2018
Date



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

Date: June 13, 2019

MEMORANDUM TO: File

From: Michelle Lopez, Transportation Planner, STV Engineers,
Inc

SUBJECT: **NRCS Farmland Conversion Impact Rating Bridge No.
480166 on SR 1595 (Coolbrook Road) over Rocky Creek
Iredell County, NC**

WBS 47115.1.1, Project No. BR-0115

The Farmland Protection Policy Act of 1981 (7 CFR Part 658) (FPPA) requires an assessment of the potential impacts of land acquisition and construction activities in prime, unique, and local or statewide importance as defined by the US Natural Resource Conservation Service (NRCS). This memo is to document the completion and results of the NRCS Farmland Conservation Impact Rating process for Project BR-0115 consistent with FPPA.

Project Description

BR-0115 proposes to replace Bridge No. 480166 on SR 1595 (Coolbrook Road) over Rocky Creek in Iredell County. The project proposes replacing the existing bridge with an approximately 30-foot wide structure with two 10-foot travel lanes. The proposed bridge would be approximately 138 feet in length and the proposed right of way varies from 60 feet to 85 feet. The total length of the project is approximately 700 feet.

Applicability

Project BR-0115 is subject to the provisions of FPPA for the following reasons:

- It is a federally funded project.
- It is not within a municipality, urbanized area, or urban built-up area.
- Prime farmlands of statewide importance are found within the project area.
- The land is not in water storage or used for national defense purposes.

NRCS Farmland Figure

In accordance with guidance provided by NCDOT Community Studies, the farmland figure was created to display the project location and a one-mile buffer over a layer displaying prime farmland, farmland of statewide importance, and Farmland of Local Importance in the vicinity of the project. A project footprint was created to include a 25-foot buffer from the slope stakes. The NRCS farmland figure is attached to this memo.

Completion of Part VI of the NRCS Form AD-1006

Part VI (Site Assessment Criteria) of the NRCS Form AD-1006 was completed for this project. Points allotted for each criterium and reasoning are provided below.

1. Area in Non-urban Use: 15 out of 15 points. Estimated using aerial photography; approximately 95% of the land within the 1-mile buffer is non-urban.
2. Perimeter in Non-urban Use: 10 out of 10 points. Estimated using aerial photography; more than approximately 95% borders on land in non-urban use.
3. Percent of Site Being Farmed: 5 out of 20 points. Estimated using aerial photography; approximately 25% of the site is being farmed.
4. Protection Provided by State and Local Government: 0 out of 20 points. The site is not designated as a Voluntary Agriculture District (VAD) or Enhanced Voluntary Agriculture District (EVAD).
5. Distance from Urban Built-up Area: 10 out of 15 points. Determined using aerial photography; site is within 1.5 mile of Central Fire Department and Barker's Grove Baptist Church.
6. Distance to Urban Support Services: 0 out of 15 points. Services exist within ½ mile of the project site.
7. Size of Present Farm Unit Compared to Average: 0 out of 10 points. The farm units are more than 50% below the average size farm unit in Iredell County (127 acres).
8. Creation of Non-farmable Farmland: 0 out of 10 points. This project will have no implications on remaining farmable land.
9. Availability of Farm Support Services: 0 out of 5 points. No farm support services were identified within the site.
10. On-Farm Investments: 10 out of 20 points. Some on-farm investments including barns, storage buildings, and waterways were identified using aerial imagery.
11. Effects of Conversion on Farm Support Services: 0 out of 10 points. No significant reduction in demand for farm support services would occur as a result from the project.
12. Compatibility with Existing Agricultural Use: 0 out of 10 points. The project is compatible with existing agricultural use.

Result of Site Assessment Criteria

The sum of the points assigned in part VI of the NRCS form AD-1006 for BR-0115 is **50**.

Summary

Because the total of the points assigned in part VI of the NRCS form AD-1006 for BR-0115 is less than 60 and therefore the total points of the NRCS Farmlands Conversion Form AD-1006 is less than 160, no mitigation for farmland loss is required for the project in accordance with FPPA.

Sources

US Census. Census of Agriculture. 2012. County Data. North Carolina. Iredell County. Accessed 6/13/2019.

(https://www.nass.usda.gov/Publications/AgCensus/2012/Online_Resources/County_Profiles/North_Carolina/cp37097.pdf)

Iredell County. GIS Mapping. ConnectGIS Web Hosting. Iredell County, NC. Accessed 6/13/2019.

(<https://iredell.connectgis.com/Map.aspx>)

Legal Information Institute. Section 658.5- Criteria. Accessed 6/13/2019.

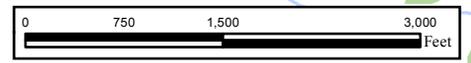
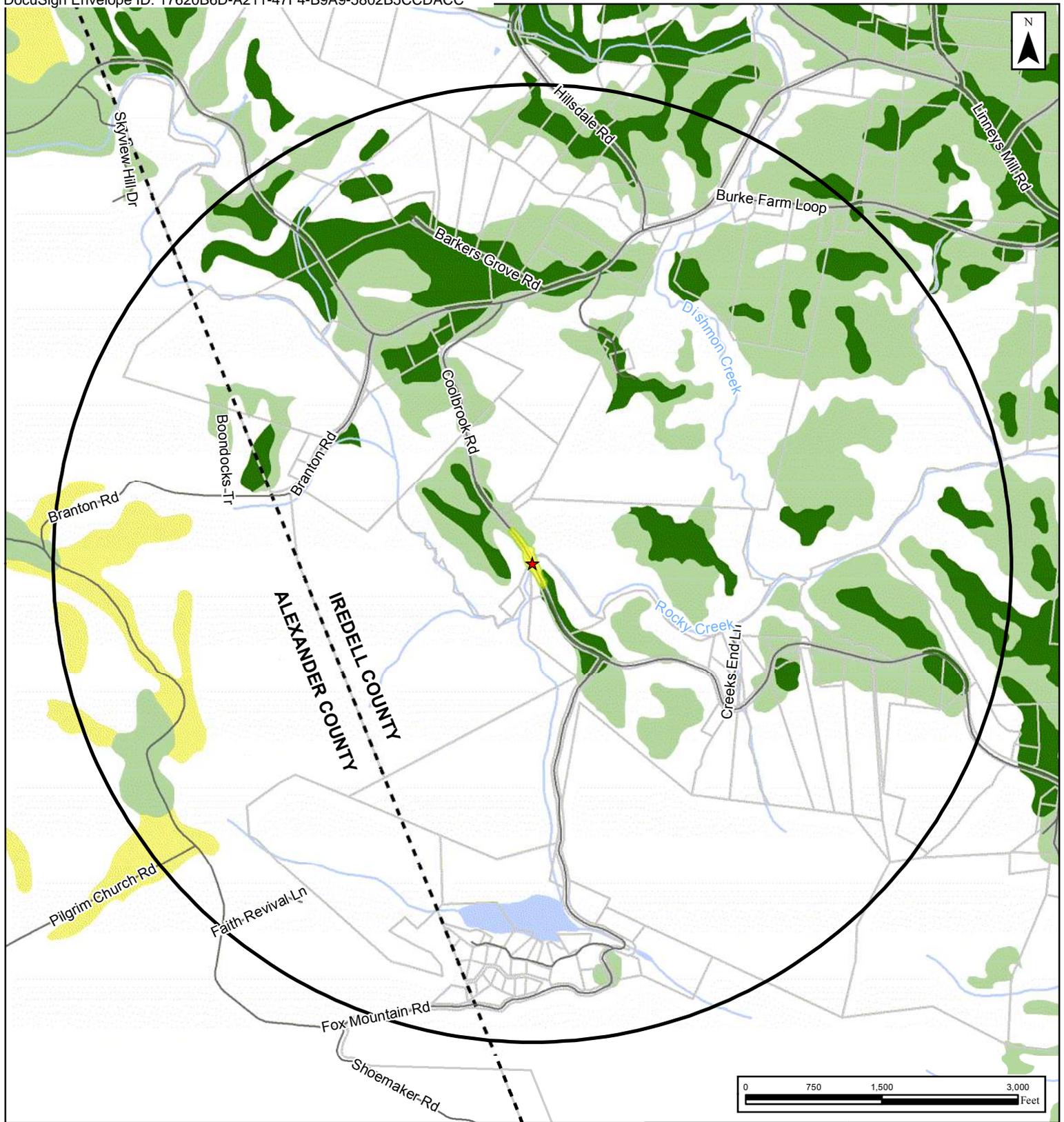
(<https://www.law.cornell.edu/cfr/text/7/658.5>)

Attachments

NRCS Farmland figure

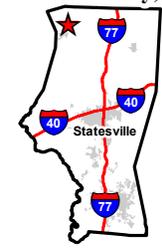
Cc: Harrison Marshall and Herman Huang, NCDOT Community Studies

DRAFT



- Legend**
- ★ Bridge No. 166 over Rocky Creek
 - Project Footprint
 - 1-mile Buffer
 - Roads
 - Parcels
 - ⋯ Countyline
 - Streams
 - Prime Farmland
 - Farmland of Statewide Importance
 - Farmland of Local Importance

Iredell County, NC



Sources: Iredell County GIS Department, USDA/NRCS Soil Survey Center, NC One Map, & Google Earth

BR-0115
Bridge No. 166
Replacement Project
over Rocky Creek
Iredell County
NCDOT Division 12

June 2019

NRCS Farmland Figure